

Evaluation Report
Knowledge based Entrepreneurship
Course 42435, Autumn 2006

Thursday, 04 January 2007

Course specifications

13 lectures x 3 hours from September 2006 to December 2006

Themes: Applied experiences, opportunity-driven creativity, start-up strategies, business planning, market research & analysis, sales & marketing, management, budgeting & cash flow projection, financing, business law, patenting & licensing (IPR), cases.

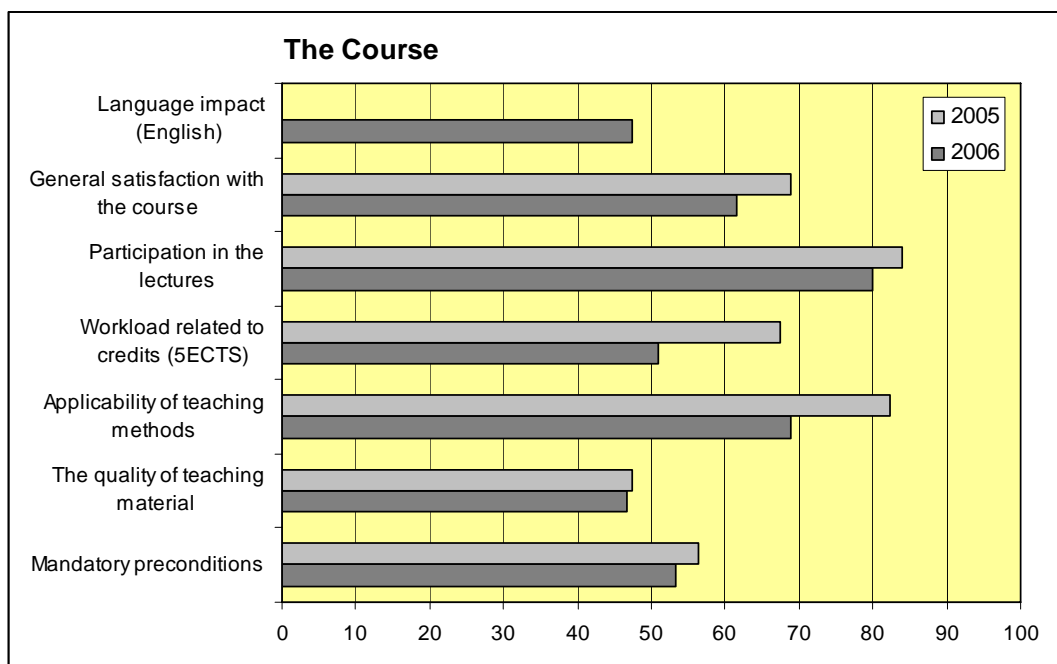
Group work: idea generation, development of a business model and a start-up strategy, business planning and presentation of the project.

Number of students: 70 passed
Number of groups 19
Average grade: 9.4 dev = 1.1 (Scale 0 to 13. Average performance = 8)

Evaluation 15 minutes oral presentation of business plan
5 minutes discussion and feed back
Teacher: John Heebøll, associate professor, IPL, DTU
External censor Kristian Phillipsen, associate professor, Syddansk Universitet, Kolding
Assistant teachers: 6 senior graduate students from Copenhagen Business School

Evaluation principles and results

Students are encouraged to evaluate the course, late October after 9-10 lectures. A digital questionnaire is available at the intranet (CampusNet). 30 students complied. A summary including last years figures is presented below and commented on p. 2. Scale is worst to best; 0 to 100.



Comments to the evaluation

1. The teaching language is English. From August 2007 this is compulsory in graduate courses at DTU, so we started a little early. Two notable experiences are distilled: most Danish students are not happy about it and from the teacher's desk: it takes a surprising amount of work to migrate teaching materials. Teaching in English adds considerably to the mental load, and 3 hours exposure time requires methodical preparation and some recuperation too.
2. The impact of the teaching language apparently is neutral. In reality, the international wing of students outbalanced a number of Danish students, complaining, that they lost considerably from being taught in English.
3. The teacher advocates the viewpoint that a good command of spoken and written English significantly increases the success rate of high tec entrepreneurs, since most of them establish their business in global niche markets. Hence it makes a lot of sense to invest in acquiring and improving language skills in the entrepreneurial field, and consequently, English is here to stay.
4. The general satisfaction dropped a bit from 69% to 62% from 2005 to 2006. Still, the course is quite popular among students, which again is essential to keep up the number of participants, which constitute approximately 8 – 10% of a DTU year group at present.
5. Close to 80 % score on participation in the lectures hides a very high participation at the beginning, which then drops dramatically, late October and November. The underlying causes include a heavy workload (hence competition) from other courses combined with less sense of urgency since the business idea has been singled out and the business planning work has become more foreseeable. The low number of students at the end of the semester however excludes the option of inviting external lectures. The best period to dive into business cases is by the end of the course, when the the students have acquired the basic preconditions for understanding and analysing them. This is where visiting lecturers come in handy. Hence, some countermeasures have to be developed to increase the attendance.
6. The workload is well balanced to the credits. Since 1 ECTS equals 25 hours, the total workload of this course is around 125 hours per student or awesome 8.750 hours in total.
7. The applicability of pedagogy and didactics scores 69% which is quite high – and has always been so, which again is a small paradox, since lecturing large classes is often considered discount teaching and less inspiring to the individual compared to classroom teaching of small groups. Lectures seem however to work, here, and there is good reason to believe, that the external lecturers, who bring with them an air of reality, good stories, commitment and some unforeseeability, are the prime reason for this high score.
8. The quality of the teaching material scores 47, which is too low. A new textbook is in the making, however. Further, the slides will be published in a more readable form in future courses.
9. Mandatory preconditions: we do not require specific preconditions, but we do recommend that students take the course late in their study – preferably just before their master thesis. So in fact the acceptance of mandatory preconditions just disclose that people find this course does not really require any business skills – which again is as should be at a technical university.

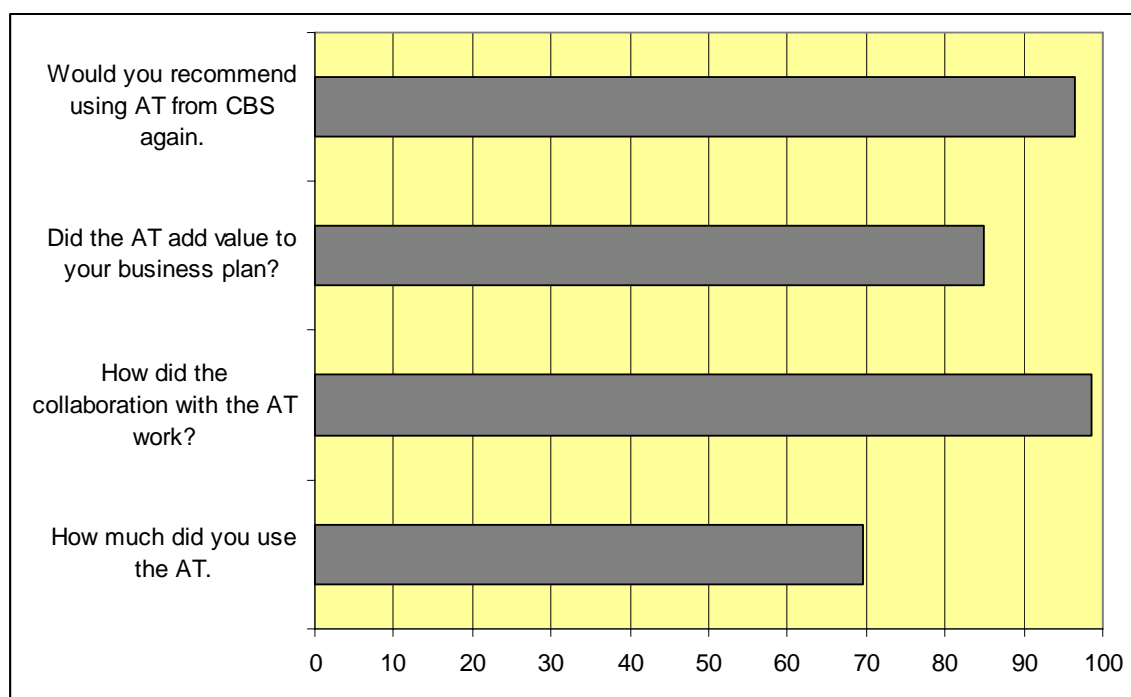
Assistant teacher program 2006

Six senior graduate students (stud.merc.) from Copenhagen Business School were hired to act as assistant teachers to the project groups.

We wanted to test how interdisciplinary groups worked and whether business school students with a comprehensive theoretical background were able to add value to the very practical and technical start-up projects, run by engineering students with little or no business background.

We received 29 questionnaires. The result is plotted below on a scale from 1 to 100, worst to best.

The feed-back is compelling evidence that this program worked very well, and hence we will expand our cooperation with the Copenhagen Business School in this field – by hiring assistant teachers and by seeking new ways to mix engineering and business students.



Comments received from students:

I appreciate: 13 comments received to commend the visiting lecturers, the targets (McKinsey & Venturecup competitions), the assistant teachers, the themes and issues covered, the realistic approach to business start-up, and the general entrepreneurial and enthusiastic approach that characterises this course.

I criticize: 12 comments received to protest in particular against the teaching language, and also some comments on the language skills of teacher(s), the quality of present teaching materials, the length of lectures, the frustrating idea generation period, the few cases, the relatively late arrival of assistant teachers and the absence of homework (assignments). The synthesis of the criticism is the introduction of new teaching materials, assistant teachers from day one and mandatory assignments. The language will be English. English skills of teacher(s) is subject to further development – and hopefully improvement.

I suggest. 8 comments received, ranging from non-specific changes of teaching and group work to an expansion of the course to cover two semesters, to less lecturing and more substance, to more groupwork and less lecturing, to less complicated lectures, to go back to teaching in Danish. Really vectoring in all directions, reflecting the span in students' preconditions, interests and learning capabilities.

Course development

Following is subject to change from 2007

1. Assistant teachers from day one
2. Shorter lectures – more to the point
3. Revitalize cooperation with Copenhagen Business School
4. New teaching materials (Textbook and slides in a binder)
5. Assignments (To be developed – mostly like specific cases in need for a solution to specific and typical problems, related to a start-up situation)
6. A bonus program to attract more students to lectures, late in the course.
7. A revision of the evaluation form to allow assessment of individual grade
8. Language skills of teacher(s) though the influence of teaching in English for a year is to be checked at first.

Following is not subject to change: teaching language.



Lyngby, 07 January 2007
John Heebøll